

**ABSTRACT OF THE DISCLOSURE:**

The operation of a generator is improved in the efficiency throughout a wider speed range.

AI The generator of a magnetic type is provided where a direct current output of a converter including semiconductor rectifying devices for rectifying the output of the generator is converted by an inverter to an alternating current form at a particular frequency. The conduction of thyristors is determined by a thyristor drive unit to control the voltage output of the converter to a target voltage level. The target voltage level is set to a positive value corresponding to the speed of the generator. The target voltage level is lowered when the generator is operated at a lower speed range and elevated when at a higher speed range. Accordingly, the output of the magnetic generator is increased substantially in proportion to the speed.